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The attitude of complete denture wearers towards denture adhesives in Istanbul

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SUMMARY The purpose of using denture adhesives is to subjectively benefit denture-wearers with improved fit and comfort of their dentures and to improve their chewing ability and confidence. The purpose of this study was to investigate the approach and thought of complete denture wearers to denture adhesives and to see why they had tried denture adhesive, and their reasons for its current use or non-use through a questionnaire. One hundred and fifteen patients attending the Marmara University, Dental School for new denture treatment were surveyed. In the survey, there were 62 females (54%) and 53 males (46%). Nearly half of these patients (53%) were in the 61–70-year age group with a mean age of 64 years. One hundred and six (92%) patients had never tried denture adhesive.

Most patients (73%) who did not use denture adhesives managed their dentures well, but a significant number 101 (87%) did not know that denture adhesives existed. Nine (8%) had tried denture adhesives, and none of the patients were currently using them. Those who ceased using denture adhesive complained mainly that it did not improve the fit and chewing ability significantly. The outcome of this survey demonstrated that the knowledge of the patients is not enough on denture adhesives in Istanbul as it is still generally believed by the practitioners that the prescription of a denture adhesive is a sign of failure of the dentist.

KEYWORDS: denture adhesives, dentures

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Introduction

Denture adhesives have been introduced in modern dentistry in the late 18th century. The earliest patent pertaining to adhesive was issued in 1913 and other patents followed this in the 1920s and 1930s (1).

Recent studies responded to questions about satisfaction with denture adhesives and retention of complete dentures which demonstrated subjective improvement when using a denture adhesive (2–4). Denture adhesives are found advantageous by a substantial proportion of edentulous patients (5) but dental professionals have been slow to accept them as a means to enhance denture retention, stability and function. Despite considerable documentation advocating patients' use of adhesives, many dentists view adhesive usage as poor reflection of their clinical skills

and prosthetic expertise (6) or their failure to provide an adequate prosthesis. Although clinical trials failed to show damaging effects of denture adhesives to maxillary tissues (7–9), many dentists are also fearing that denture adhesives are causing increased alveolar ridge resorption and soft tissue hyperplasia. Certainly, patients who continue to wear ill-fitting dentures may misuse denture adhesives. However, it is also valid for patients who continue to function with ill-fitting dentures without using adhesives. There is more or less restraining attitude of the profession towards denture adhesives but it was shown that a substantial proportion of denture wearers (7–33%) had tried denture adhesives or were currently regular users (10).

There have been few reports in the dental literature on the number of denture wearers who regularly use

denture adhesive, and the reason for its use and non-use. Bates and Murphy (11) in a study of an edentulous population in Wales, found that 12% of females and 10% of males used or had used denture adhesives. They suggested that many denture wearers abandoned the use of denture adhesive after a period of time because of its expense and brief period of action. A survey of patients living in a residential home for the elderly in Cardiff found that 9% were using denture adhesive (12). In another survey, it was reported that 30% of the patients wearing dentures used or had used denture adhesive (13). Tarbet and Grossman (8) stated that about 12% of the patients who wore a denture also used an adhesive. The total consumption was predicted to increase, because the number of edentulous individuals is expected to increase until the year 2000 (14). More than 5 million Americans use denture adhesives and approximately 75% of all dentists recommended the use of denture adhesives to their denture patients (6). Some dental surgeons advise the use of an adhesive during the first weeks of wearing new dentures for some elderly patients, who experience the loss of their remaining teeth, in order to give the denture greater retention and to supply patient confidence. It may also be a helpful aid for the patients wearing an immediate denture to reduce discomfort (15).

There have been no reports about this issue in Turkey. The purpose of this study was to investigate the approach and thought of complete denture wearers to denture adhesives and to see why they had tried denture adhesive, and their reasons for its current use or non-use through a questionnaire.

Materials and methods

In this study, 115 edentulous, denture-wearing patients visiting the dental clinics of Marmara University in Istanbul, Turkey for new dentures, were surveyed regarding their knowledge and experience of denture adhesive, using a prepared questionnaire.

Information about patients whether they are female or male, their age, for how long they have been wearing their current dentures was recorded. The following questions were asked to the patients:

1. How long have you been wearing your dentures?
2. Did you try using denture adhesive before?
3. Why did you try using denture adhesive?
4. Why didn't you try using denture adhesive?
5. Why did you stop using the adhesive?

Results

There were 62 females (54%) and 53 males (46%) in the survey. Nearly half of these patients (53%) were in the 61–70-year age group with a mean age of 64 years (Fig. 1). Patients had been wearing their present dentures for a period from 1 to 25 years (Fig. 2).

Depending on the answers received to the questions, the surveyed group was divided into three categories – those who had never tried denture adhesive, those who had tried denture adhesive but no longer used it and those who currently used denture adhesive.

Patients who had never tried denture adhesive

One hundred and six (92%) patients had never tried denture adhesive. These patients were in fact experienced but had received new dentures because of the reasons such as mechanical failure, denture base fracture, ridge resorption affecting retention, tooth wear or being not pleased with the hygienic conditions of their dentures. Among 115 patients who attended the survey,

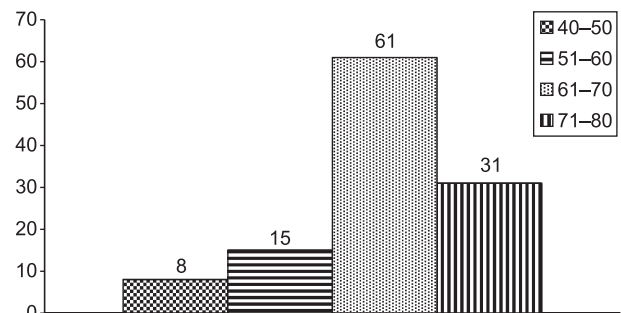


Fig. 1. Patient age distribution.

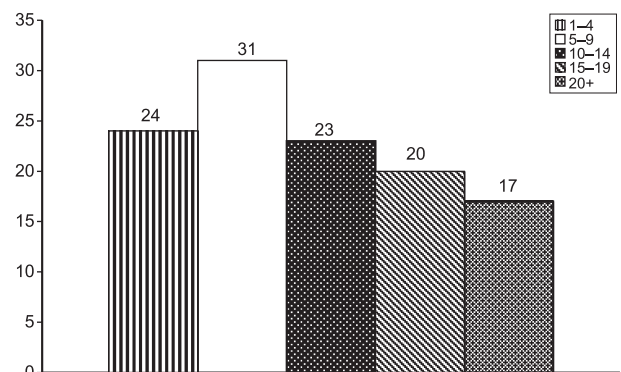


Fig. 2. Number of years that patients had worn their current dentures.

84 (73%) managed their dentures well and 101 (87%) of them did not know that denture adhesives existed. Of these 106 patients, 22 (19%) reported that they had difficulties in getting used to their dentures during their first few weeks but they also either did not know that adhesives existed (95%) or knew adhesives existed but decided not to use them (5%). The reasons given for using or non-using denture adhesives were:

1. No need, manage my dentures well	84 (73%)
2. Did not know adhesives existed	101 (87%)
3. Knew adhesives existed but decided not to use them	4 (5%)

Patients who had tried a denture adhesive but no longer used it

Only nine (8%) patients had tried denture adhesives during getting used to their new dentures or believed that the denture adhesives will improve the function of old dentures that do not longer fit correctly, particularly during chewing. However, they no longer used them and their reasons for trying denture adhesive were:

1. To improve chewing ability	8 (89%)
2. To get used to the new denture	1 (11%)

Eight (89%) of nine patients tried a paste adhesive and one (11%) tried a powder denture adhesive. Four (44%) could remember the brand name of the adhesive they have tried and five (56%) could not.

The reasons given by these patients for ceasing their use of denture adhesive were:

1. Did not significantly improve fit	6 (67%)
2. Did not significantly improve chewing ability	0 (0%)
3. Did not like the taste	1 (11%)
4. Had used it while getting used to new denture	1 (11%)
5. Could not find product on the market	1 (11%)

Patients who currently used denture adhesive

In the study group none of the patients were still using denture adhesive.

Discussion

The main reasons for trying denture adhesive are to improve fit, comfort, chewing ability, and also to improve patient confidence in wearing dentures. In

this survey, of the 115 denture wearers, 61 (53%) were in the 61–70-year age group and the remaining over the age of 70 years (27%). Forty-three patients (37%) had worn their dentures for 10 years or more and 17 (15%) for 20 years or more. These figures are less than those reported in the literature by Kail and Silver (16) and Coates (10) who found that 61 and 54.9% had worn dentures for 10 years or more and 32 and 12.8% for 20 years or more, respectively.

Most patients (92%) who did not use denture adhesives managed their dentures well, but including these patients, a significant number 101 (87%) did not know that denture adhesives existed. This information is highly less than that reported by Coates (10). This result arises the question whether the patients or the dentists are not informed on the denture adhesives or the patients are so content with the retention of their dentures that they did not seek for a denture adhesive. One conceivable explanation to this could certainly be that these patients were more experienced denture wearers as they had worn several sets of complete dentures in the time stated.

There are multiple issues related to the clinical significance of a denture adhesive, but the most important one is its efficacy in improving function. In our survey, 8% had tried denture adhesive, and none of the patients were currently using one. Understandably, those patients who ceased using adhesive found that it did not perform to their satisfaction. In the survey conducted by Coates (10), the percentage of initial denture adhesive users was dropped from 32.9 to 6.9%. Our patients complained mainly that it did not improve the fit and chewing ability significantly. This finding is in accordance with that of Coates (10). However, it is also somewhat interesting while in USA 15% of denture wearers is said to be using denture adhesives regularly (17) and Chew *et al.* (12) found that 9% of elderly is using denture adhesive in a residential home in Cardiff. With the precise number of percentage of usage, it is clear that adhesives are a fact of life for literally millions of denture wearers and for the thousands of dentists who treat them. Information from three well-known manufacturers of dental adhesives in Great Britain showed that they marketed approximately 88 tons of denture adhesive in 1965 (15). However this figure represents only the purchase and not the regular use of the material.

Although denture adhesives are used worldwide, little attention has been focused on these materials in

Turkey as it is still generally believed that the prescription of a denture adhesive is a sign of failure of the dentist. One of the disadvantages of using denture adhesives is of course the danger of prolonging the service life of an ill-fitting denture. However, in this survey for instance, 22 patients who could have benefited from using a denture adhesive during getting used to their new dentures, did not know denture adhesives existed. The results of this study suggest that the knowledge on denture adhesives is less and it should be taught more intensively at dental schools and be involved in continuing education programmes for general practitioners.

Conclusions

This study supports the concept that denture wearers are older and often have their present dentures for 10 years or more. In this survey, 73% of the patients did not need a denture adhesive as they managed their dentures well. Eighty-seven per cent of the patients did not know that denture adhesives existed; 8% of the patients had tried denture adhesive but none of them continued it on a regular basis.

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